

IN THE CLAIMS

Please cancel claims 16-20, 46, 53, and 74 without prejudice to renewal.

Please amend claims 2, 3, 5, 6, 8, 9, 12-14, 42-45, 47-51, 54-62, 64-68, and 70-73.

Please add new claims 76-98.

A complete listing of all claims in the application, including previously canceled claims, follows.

1. (Previously Canceled)

2. (Currently Amended) ~~The A recombinant human gelatin of claim 20, wherein the recombinant human gelatin having~~ has a molecular weight selected from the group consisting of about 1 kDa, about 5 kDa, about 8 kDa, about 9 kDa, about 10 kDa, about 14 kDa, about 16 kDa, about 18 kDa, about 20 kDa, about 22 kDa, about 23 kDa, about 29 kDa, about 33 kDa, about 36 kDa, about 41 kDa, about 44 kDa, about 50 kDa, and about 65 kDa.

3. (Currently Amended) ~~The A recombinant human gelatin of claim 20, wherein the recombinant human gelatin having~~ has a molecular weight range selected from the group consisting of about 0 to 50 kDa, about 10 to 30 kDa, about 30 to 50 kDa, about 10 to 70 kDa, about 50 to 70 kDa, about 50 to 100 kDa, about 100 to 150 kDa, about 150 to 200 kDa, about 200 to 250 kDa, about 250 to 300 kDa, and about 300 to 350 kDa.

4. (Original) A recombinant gelatin having a molecular weight greater than 300 kDa.

5. (Currently Amended) ~~The A recombinant human gelatin of claim 20, wherein the recombinant human gelatin having~~ has a Bloom strength selected from the group consisting of 50, 100, 150, 200, 250, and 300.

6. (Currently Amended) ~~The A recombinant human gelatin of claim 20, wherein the recombinant human gelatin having~~ has a Bloom strength of between 0 and 100.

7. (Previously Canceled)

8. (Currently Amended) A composition comprising a recombinant gelatin, wherein the recombinant gelatin has a percentage hydroxylation selected from the group consisting of greater than 0% to 20%, 20 to 80%, and, 30 to 80%, 40 to 80%, 60 to 80%, 80 to 100% ; 20 to 60%, 30 to 60%, 40 to 60%, 20 to 30%, 20 to 40%, and 30 to 40%.

9. (Currently Amended) The A composition of claim 20 comprising a recombinant human gelatin, wherein the recombinant human gelatin is non-hydroxylated.

10. (Previously Canceled)

11. (Previously Canceled)

12. (Currently Amended) A composition comprising a recombinant gelatin, wherein the recombinant gelatin comprises a homogeneous ~~mixture of~~ recombinant gelatin polypeptides.

13. (Currently Amended) The A composition of claim 20, wherein the comprising a recombinant human gelatin, wherein the recombinant human gelatin comprises a heterogeneous ~~mixture of~~ recombinant human gelatin polypeptides.

14. (Currently Amended) The A composition of claim 20 comprising a recombinant human gelatin, ~~wherein the recombinant human gelatin~~ is obtained from one type of collagen free of any other collagen.

15. (Original) The composition of claim 14, wherein the one type of collagen is selected from the group consisting of type I, type II, type III, type IV, type V, type VI, type VII, type VIII, type IX, type X, type XI, type XII, type XIII, type XIV, type XV, type XVI, type XVII, type XVIII, type XIX, and type XX collagen.

16. (Canceled Herein)

17. (Canceled Herein)
18. (Canceled Herein)
19. (Canceled Herein)
20. (Canceled Herein)
21. (Previously Amended) A recombinant gelatin comprising the amino acid sequence of SEQ ID NO:18.
22. (Previously Canceled)
23. (Previously Canceled)
24. (Previously Canceled)
25. (Previously Canceled)
26. (Previously Canceled)
27. (Previously Canceled)
28. (Previously Canceled)
29. (Previously Canceled)
30. (Previously Amended) A recombinant gelatin comprising the amino acid sequence of SEQ ID NO:29.
31. (Previously Canceled)
32. (Previously Canceled)

33. (Previously Canceled)

34. (Previously Canceled)

35. (Previously Canceled)

36. (Previously Canceled)

37. (Previously Canceled)

38. (Previously Canceled)

39. (Previously Canceled)

40. (Previously Canceled)

41. (Previously Canceled)

42. (Currently Amended) A binding agent comprising ~~the~~ a recombinant human gelatin, ~~of claim 20.~~

43. (Currently Amended) An encapsulant comprising ~~the~~ a recombinant human gelatin, ~~of claim 20.~~

44. (Currently Amended) A stabilizing agent comprising ~~the~~ a recombinant human gelatin, ~~of claim 20.~~

45. (Currently Amended) A film-forming agent comprising ~~the~~ a recombinant human gelatin, ~~of claim 20.~~

46. (Canceled Herein)

47. (Currently Amended) An emulsifier comprising ~~the~~ a recombinant human gelatin, ~~of claim 20.~~

48. (Currently Amended) A thickening agent comprising ~~the~~ a recombinant human gelatin, ~~of claim 20.~~
49. (Currently Amended) A gelling agent comprising ~~the~~ a recombinant human gelatin, ~~of claim 20.~~
50. (Currently Amended) A colloidal agent comprising ~~the~~ a recombinant human gelatin, ~~of claim 20.~~
51. (Currently Amended) An adhesive agent comprising ~~the~~ a recombinant human gelatin, ~~of claim 20.~~
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52. (Previously Canceled)
53. (Canceled Herein)
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54. (Currently Amended) A hard gel capsule comprising ~~the~~ a recombinant human gelatin, ~~of claim 20.~~
55. (Currently Amended) A soft gel capsule comprising ~~the~~ a recombinant human gelatin, ~~of claim 20.~~
56. (Currently Amended) A plasma expander comprising ~~the~~ a recombinant human gelatin, ~~of claim 20.~~
57. (Currently Amended) A colloidal volume replacement material comprising ~~the~~ a recombinant human gelatin, ~~of claim 20.~~
58. (Currently Amended) A graft coating comprising ~~the~~ a recombinant human gelatin, ~~of claim 20.~~
59. (Currently Amended) A medical sponge comprising ~~the~~ a recombinant human gelatin, ~~of claim 20.~~

60. (Currently Amended) A medical plug comprising ~~the~~ a recombinant human gelatin, ~~of~~
~~claim 20.~~

61. (Currently Amended) A pharmaceutical stabilizer comprising ~~the~~ a recombinant human
gelatin, ~~of claim 20.~~

62. (Currently Amended) A microcarrier comprising ~~the~~ a recombinant human gelatin, ~~of~~
~~claim 20.~~

63. (Previously Canceled)

64. (Currently Amended) An edible composition comprising ~~the~~ a recombinant human
gelatin, ~~of claim 20.~~

65. (Currently Amended) A protein supplement comprising ~~the~~ a recombinant human
gelatin, ~~of claim 20.~~

66. (Currently Amended) A fat substitute comprising ~~the~~ a recombinant human gelatin, ~~of~~
~~claim 20.~~

67. (Currently Amended) A nutritional supplement comprising ~~the~~ a recombinant human
gelatin, ~~of claim 20.~~

68. (Currently Amended) An edible coating comprising ~~the~~ a recombinant human gelatin, ~~of~~
~~claim 20.~~

69. (Previously Canceled)

70. (Currently Amended) A photographic composition comprising ~~the~~ a recombinant human
gelatin, ~~of claim 20.~~

71. (Currently Amended) A cosmetic composition comprising ~~the~~ a recombinant human
gelatin, ~~of claim 20.~~

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72. (Currently Amended) An industrial composition comprising ~~the~~ a recombinant human gelatin, ~~of claim 20.~~

73. (Currently Amended) A cell culture composition comprising ~~the~~ a recombinant human gelatin, ~~of claim 20.~~

74. (Canceled Herein)

75. (Previously Added) The pharmaceutical stabilizer of claim 61, wherein the pharmaceutical stabilizer is a vaccine stabilizer.

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76. (New) A recombinant human gelatin having a molecular weight range selected from the group consisting of about 10 to 30 kDa, about 30 to 50 kDa, and about 50 to 70 kDa.

77. (New) A recombinant human gelatin having a molecular weight range selected from the group consisting of about 10 to 70 kDa, about 150 to 250 kDa, and about 250 to 350 kDa.

78. (New) A composition comprising a recombinant gelatin, wherein the recombinant gelatin has a percentage hydroxylation selected from the group consisting of 20 to 40%, 40 to 60%, 60 to 80%.

79. (New) A composition comprising a recombinant gelatin, wherein the recombinant gelatin has a percentage hydroxylation selected from the group consisting of 20 to 30%, 30 to 40%, and 40 to 80%.

80. (New) A composition comprising a recombinant gelatin, wherein the recombinant gelatin has a percentage hydroxylation of 30 to 80%.

81. (New) A composition comprising a recombinant gelatin, wherein the recombinant gelatin has a percentage hydroxylation of 20 to 60%.

82. (New) A composition comprising a recombinant gelatin, wherein the recombinant gelatin has a percentage hydroxylation 30 to 60%.

83. (New) The composition of claim 8, wherein the hydroxylation is proline hydroxylation.
84. (New) An isolated and purified recombinant human gelatin polypeptide.
85. (New) The composition of claim 13, wherein the recombinant human gelatin comprises a first recombinant human gelatin polypeptide obtained from a first type of collagen and a second recombinant human gelatin polypeptide obtained from a second type of collagen.
86. (New) The composition of claim 13, wherein the recombinant human gelatin comprises a first recombinant human gelatin polypeptide and a second recombinant human gelatin polypeptide, wherein the first and the second recombinant human gelatin polypeptides are obtained from the same type of collagen.
87. (New) A composition comprising a recombinant human gelatin, wherein the recombinant human gelatin is obtained from recombinant human collagen.
88. (New) A composition comprising a recombinant human gelatin, wherein the recombinant human gelatin is produced directly from an expression construct.
89. (New) The composition of claim 88, wherein the expression construct is an altered collagen construct.
90. (New) A pharmaceutical composition comprising a recombinant gelatin, wherein the recombinant gelatin comprises homogeneous recombinant gelatin polypeptides.
91. (New) A pharmaceutical composition comprising a recombinant human gelatin, wherein the recombinant human gelatin comprises heterogeneous recombinant human gelatin polypeptides.
92. (New) A pharmaceutical composition comprising a recombinant human gelatin, wherein the recombinant human gelatin is non-hydroxylated.

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93. (New) A pharmaceutical composition comprising a recombinant gelatin, wherein the recombinant gelatin has a percentage hydroxylation selected from the group consisting of greater than 0 to 20%, 20 to 80%, and 80 to 100%.
94. (New) The pharmaceutical composition of claim 93, wherein the hydroxylation is proline hydroxylation.
95. (New) A pharmaceutical composition comprising a recombinant human gelatin, wherein the recombinant human gelatin is obtained from one type of collagen free of any other type of collagen.
96. (New) A pharmaceutical composition comprising a recombinant human gelatin, wherein the recombinant human gelatin is obtained from recombinant human collagen.
97. (New) A pharmaceutical composition comprising a recombinant human gelatin, wherein the recombinant human gelatin is produced directly from an expression construct.
98. (New) The pharmaceutical composition of claim 97, wherein the expression construct is an altered collagen construct.
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